

REMARKS

Claim 18 which was directed to a non-elected invention has been cancelled as required by the Examiner. Claims 1-5, 10 and 12 have also been cancelled. Claims 6-9, 11, 13 and 17 have been amended.

Claims 1-3, 6-14 and 17 were rejected under 35 USC 103(a) as being unpatentable over Kanzawa et al (US Patent 6858454) in view of Brody et al (US Patent 6943066). Claims 4, 5, 15 and 16 were rejected under 35 USC 103(a) as being unpatentable over Kanzawa et al (US Patent 6858454) in view of Brody et al (US Patent 6943066) and further in view of Shtein et al (US Patent 6716656).

Amended claim 11 is the only independent claim remaining in this application. It now sets forth that there are two vacuum deposition chambers and two shadowmasks used to deposit separate organic layers onto at least one device region and first and second test regions. A different shadowmask corresponding to each deposition chamber is used.

Kanzawa et al disclose a method for measuring semiconductor layers formed on a substrate. As shown in Fig. 11, it has one or more test regions and a plurality of device regions. The test regions are measured to adjust the process. At the outset, applicants note that Kanzawa et al are not concerned with forming organic layers on a device region. They only form a single semiconductor layer over a substrate and the substrate includes test regions. Claim 11 requires two deposition chambers for depositing two organic layers and the use of shadowmasks.

There would be no purpose for Kanzawa et al to use shadowmasks. They provide no suggestion that different shadowmasks can correspond to different deposition chambers. OLED devices are highly sensitive to moisture and oxygen and the shadowmasks provide a way to pattern organic layers without introducing oxygen or moisture. Kanzawa et al use a single layer composed of silicon and germanium used for making electronic devices. These materials do not require the patterning performed by shadowmasks. Typically, conventional photolithography methods are used after a layer is deposited in making inorganic electronic devices. Applicants do not see how Kanzawa et al provide any motivation or suggestion to one in the OLED art to use two separate deposition chambers and two separate shadowmasks for depositing the plurality of organic

layers of an OLED structure as required by claim 11. Claim 11 uses a separate shadowmask for each deposition chamber having openings corresponding to a device region and an opening corresponding to a test region thereby enabling the different OLED layers to be separated and individually measured. Prior art techniques used for monitoring properties of an organic layer in an OLED device are set forth on page 1, line 27 to page 2, line 25 of the present application. The present invention clearly provides advantages over these arrangements. Applicants fail to see how the Kanzawa et al process can reasonably be applied to an OLED device constructed of a plurality of different organic layers.

Brody et al relates to forming electronic elements (a TFT matrix) and controlled elements (OLED) by sequentially depositing a plurality of layers through shadowmasks using a series of vacuum vessels. Applicants cannot find any opening which would correspond to a spaced apart test region on a substrate. Brody et al do suggest including a test vacuum vessel (vessel 22) which is intended to measure the electrical performance of the TFT matrix device (or device region) deposited in vessels 4-1 to 4-6 prior to depositing the OLED organic layers in vessels 4-7 to 4-11. Brody et al do not teach separation of the deposited layers through use of the shadow masks to facilitate measurement of any of these layers. Brody et al do not propose any measurement of the organic layers of the OLED device. That is, Brody et al do not separate organic layers of the OLED device into separate test regions by openings in a shadow mask, and therefore do not realize the advantages of the present invention.

Shtein et al was cited as teaching a vacuum pressure less than 0.001 Pa. Nothing in Shtein et al discloses the features claim 11 as discussed above.

It is believed that these changes now make the claims clear and definite and, if there are any problems with these changes, Applicants' attorney would appreciate a telephone call.

In view of the foregoing, it is believed none of the references, taken singly or in combination, disclose the claimed invention. Accordingly, this application is believed to be in condition for allowance, the notice of which is respectfully requested.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Ray L. Owens', with a long horizontal flourish extending to the right.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.